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GEOGRAPHIC SCHOOL BULLETINS

Published Weekly by

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HILLBILLY MUSIC MAKES ASHUG FINGERS FLY

In Russia's Caucasus, every generation of mountaineers has had its *ashugs*, or ballad singers, to tickle out a tune or two of mountain music on their mandolins. As most of the mountain tribes had no alphabet, the *ashugs* were "libraries" of unwritten literature. The *ashugs* have kept alive old ballads telling how mountain heroes fought off all invaders to retain their freedom. When the Tsar's soldiers tried to conquer the Caucasus, *ashugs* were outlaws inciting to revolt. Under the Soviets they are encouraged, as builders of morale. This year again the Caucasus mountaineers have driven out their Nazi invaders. These ballad singers live in Azerbaijan, the southeast Caucasus republic whose oil lured the Nazis (Bulletin No. 4). *Sovfoto*

GEOGRAPHIC SCHOOL BULLETIN

HOW TEACHERS MAY OBTAIN THE BULLETINS

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Anti-Sub Azores: New Lifeline Link for Atlantic Shipping

PORTUGAL'S permission for Britain to use bases in the Azores strengthens the United Nations defenses against Nazi submarines. With bases in Bermuda and Newfoundland to patrol the western half of the Atlantic, Azores bases will aid in protecting the European approaches of sea lanes to Britain and the Mediterranean, and to North Africa as well.

In World War I, U. S. warships operated from bases in the Azores. The islands are regularly a stop for Clipper planes flying to Portugal on one of the two commercial air lines still spanning the Atlantic.

The Azores are closer to the Atlantic coast of the United States than the Hawaiian Islands are to the Pacific coast. From New York the Azores are 2,395 air miles to the east. From recently constructed U. S. bases maintained in Bermuda and Newfoundland, the islands are distant only 2,065 and 1,430 miles respectively.

Horta a Way Station for Clippers and Cables

Nine scattered islands comprise the Azores, or, in Portuguese, the Açores (map, next page). They lie at an average distance of 950 miles west of Lisbon, Portugal.

The best known is Fayal. The other islands in the 375-mile-long group are Corvo, Flores, Graciosa, Terceira, São Jorge, Pico, São Miguel, and Santa Maria. The total population is about 255,000, mostly of Portuguese origin.

Horta, Fayal's chief city, is a busy center of transoceanic communications. It is the most important junction and relay point of transatlantic cables. Before the war one of its buildings housed six companies—British, German, Italian, French, and two American. Through 15 direct cables, they handled messages for stations in North America, Europe, and South Africa, and by interconnection for stations in every part of the world.

This port (illustration, inside cover) is the Azores stopping place for the plane service between the United States and Portugal, and a convenient fueling station for ocean shipping. It has a powerful naval radio station.

Trucks Elbowing Singing Carts

Ponta Delgada, capital of the island group, is the largest Azores city, with some 18,000 people. Only four of Portugal's cities are larger. This was a headquarters of the U. S. fleet in World War I.

Like most regions of volcanic origin, the Azores are scenically spectacular. Rugged peaks, rising above intensively cultivated green lowlands, support luxuriant vineyards and orchards. With a wonderfully mild climate, the rich fields produce corn, wheat, potatoes, tobacco, jute, tea, pineapples, and other fruits. Farmers raise herds of cattle. Food, in fact, on several of the islands is more plentiful than water. If supplies from elsewhere were cut off, the settlements on the Azores would stand a good chance of maintaining themselves indefinitely.

Ocean winds, strong from south and west, turn the canvas sails of windmills which grind grain into meal and flour. Although the use of trucks is becoming more widespread, many countrymen still haul their produce in "singing carts." These get their name from the squeaky sound of two wooden wheels revolving on axles also of wood.

UMI

Pan American Airways

GIANT MODERN SEA GULLS ALIGHT BESIDE PORTUGAL'S MID-ATLANTIC HAWKS' NEST

The Azores (Açores, or "Hawks" in Portuguese) have been a mid-ocean haven for transatlantic flyers since the first North America-to-Europe flight in 1919. The U. S. Navy seaplane *NC-4* made that historic flight from a base in Newfoundland to England, with a stop at the Azores. The little port of Horta (above) is a permanent way station for transatlantic Clipper planes and a cable station. Behind its waterfront rows of solidly built, three- and four-story houses, fields and vineyards sweep up the fertile slopes of Fayal Island's hills. Radio towers rise from the hill to the left. Formerly a Portuguese town of 7,600 people, Horta has acquired a cosmopolitan flavor from newcomers connected with its radio, cable, air-line, and newsgathering activities. Now the international importance of the Azores will be further heightened by bases which Portugal has granted the British for protecting Allied shipping against Nazi submarines (Bulletin No. 1).

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General Headquarters, Washington, D. C.

The Appian Way, an Allied Road to Rome

AMERICAN and British armies pounding over the roads to Rome are echoing the tramp of Roman legions and the rumble of their war chariots that once made martial din along the Appian Way.

Traversed by St. Paul and Julius Caesar, this first-paved and most famous of Roman roads was begun in 312 B. C. by the censor, Appius Claudius, and named in his honor. Along this, as on their other main highways, the Romans placed "milestones" 1,000 Roman paces apart (4,859 feet). The poet Statius called it *Regina Viarum* (Queen of Roads).

From the Porta Capena, a gate in Rome's Servian Wall, the Appian Way runs southeast to Capua, and thence across Italy's ankle to Brindisi, on the heel of the boot.

Surfaced with many-sided blocks of lava rock, the ancient paving is still in good condition in many sections. This is especially true of the stretch from Rome through the area excavated in the early 1850's, between the third and the eleventh milestones.

Road Crosses Pontine Marshes

Bordering this portion of the Via Appia are the ruins of villas, catacombs where early Christians took refuge from persecution, and tombs—among the latter, those of the Scipios. Of greatest interest to peacetime tourists were the catacombs of St. Calixtus and of Domitilla, dating from the first century.

Southeast from Rome the highway parallels the coast, about 15 miles inland. It climbs over steep grades in the Alban Hills, and cuts across the 30-mile length of the Pontine Marshes, recently reclaimed by canal drainage. To the south and east are plains bordered on the northeast by the Lepine Mountains, limestone ridges with outlines softened by the gray-green of olive groves.

About midway from Rome to Naples the Appian Way dips down to the coast at Terracina, a town of some 10,000 inhabitants, between the Ausonian Hills and the Tyrrhenian Sea. Here the Emperor Trajan, forerunner of modern engineers who eliminate hairpin curves and level hills, in improving the Appian Way, cut down to 120 feet the rocky promontory over which the road originally ran.

Link with Greece and the Levant

From Terracina the road leaves the coast and runs in a general southeasterly direction through Capua to Brindisi. At Benevento the Via Appia runs under an arch of Parian marble, 51 feet high, erected in honor of the Emperor Trajan.

Crossing the Salentine Peninsula, heel of Italy's boot, the main road ends at Brindisi. The harbor of this Adriatic port once swarmed with galleys that ferried traders to and from Mediterranean ports. Ships sailed from there to Greece where roads led to the fabulous East. The modern Levant Fair, held at Bari, 65 miles northwest of Brindisi, recalled Rome's flourishing trade with the Near East in the heyday of the Empire. Then Syrians, Persians, and other Eastern merchants traveled up the Appian Way to do business in Rome.

Near the Brindisi house where Virgil died in 19 B.C. stands a marble column and the base of another (which is now at near-by Lecce); they were supposed to mark the end of the Via Appia. A spur of this road, however, extended to Hydruntum, now called Otranto. From Rome's Porta Capena to its actual terminus

UMI

There are valuable fisheries of tuna, bonita, and mullet around the islands. Whaling is a profitable industry.

Politically a part of Portugal, the Azores are officially listed as "Islands Adjacent" to the European homeland, in spite of the intervening miles.

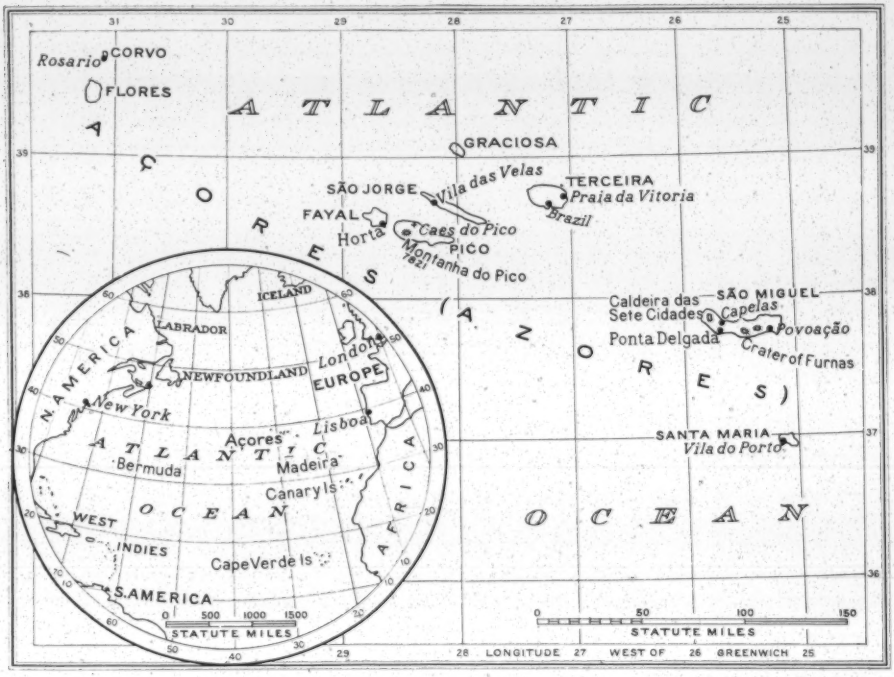
Ancient coins found on the Azores indicate that the islands in the Atlantic were probably first visited by Carthaginians. Portuguese navigators rediscovered them in 1432 and claimed them for Portugal.

Transatlantic flights brought the Azores into the news as early as 1919, when the U. S. Navy seaplane *NC-4* landed at Horta. British, German, Italian, and French transocean flying boats have also used Fayal as a steppingstone.

NOTE: The Azores are shown on the National Geographic Society's Map of the Atlantic Ocean. A price list of maps is available at the Society's Washington, D. C., headquarters.

For further information on the Azores, see the text accompanying special map supplement in color, "New Map of the Atlantic Ocean," in the *National Geographic Magazine* for September, 1941; and "European Outpost: The Azores," January, 1935*. (*Issues marked with an asterisk are included in a special list of Magazines available to teachers at 10¢ a copy in groups of ten.*) See also the GEOGRAPHIC SCHOOL BULLETINS, March 18, 1940: "Horta in the Azores: Mid-Atlantic City of Wings."

Bulletin No. 1, November 1, 1943.



Newman Bumstead

SURROUNDED BY SEA, THE AZORES ARE LONELY AS HAWKS IN THE AIR

"Açores," the Portuguese name for the islands, means "hawks." The outstanding feature of these "sea hawks" is their utter isolation, even from one another. The nine islands fall into three widely spaced groups. Corvo ("The Crow") and Flores ("Flowers") are the northwesternmost. The central group is most important internationally, because Horta, on Fayal, is the cable and airways station. Pico, in the same group, rises to a conical volcanic peak which is the highest point in the islands. The southeastern group includes the largest island, São Miguel, with the largest city, Ponta Delgada, and the historic old island of Santa Maria, the first to be colonized by Europeans. It was this island at which Columbus touched with the news that the Azores were not the edge of the world after all. The inset map shows how the Azores, alone in their sector of the ocean, are a convenient steppingstone between New York and Lisbon (Lisboa) via Bermuda or Newfoundland.

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New Uses for "Naval Stores": Rosin and Turpentine Go to War

CUTTING down the old pine tree for any reason except "needed for military purposes" may soon be banned for the duration. At least 70,000,000 southern pines are now considered essential war workers. They produce those highly important war materials lumped under the old-fashioned term, "naval stores," which means simply rosin and turpentine.

Slash pines and long-leaf pines, covering thousands of acres of the southern United States, are now virtually in active service. Equipped with gutters and cups, and sprayed with a special stimulant, they have been dripping their valuable naval stores at the rate of about 300,000 "units" this year. A "unit" of naval stores consists of 50 gallons of turpentine and 1,400 pounds of rosin.

War needs have swung pine-tree products into front-line uses. Rosin was formerly used chiefly for fiddlers' bows and boxers' shoes, for paints, varnishes, and soaps. Turpentine served as a thinner for paints, and in certain insecticides, medicines, and numerous other compounds. Now both have been diverted to serve on the fighting fronts.

Camphor Hurts and Heals

Bombers now blasting the enemy are coated with varnish containing turpentine and rosin. Bombardiers' and pilots' clothes are waterproofed with pine products. Military first-aid kits carry heart stimulants, salves, and liniments in which synthetic camphor, made from turpentine, plays a vital role.

Rosin covers the sensitive wires in airplane instruments. Rubber parts for bombers are processed with a turpentine-derived solvent. Shells and hand grenades are coated with wax and rosin. Tanks roll off the assembly lines protected with paints and varnishes made with turpentine and rosin.

When mixed by the spoonful with cement, a pine rosin preparation will save the surface of a cement highway from scaling away as it freezes and thaws.

The pine tree, giving its lifeblood for victory, is tapped, or "chipped," in much the same way as are rubber and maple trees. A V-shaped gash is cut near the base of the pine and a cup placed to catch the gum. Each week a new gash is chipped above the old one (illustration, next page).

The tree reacts to the gash as to a wound, and secretes the gum in an effort to protect and heal the gashed surface.

Acid Spurs Gum Flow

The gum from each tree's cup is collected in a barrel and hauled away to a copper still. There the turpentine is distilled and drained off. The gummy residue simmering in the still is strained through sieves to harden into clear hard rosin.

After pine trees are dead and gone, their stumps still have a contribution to make. The old stumps are pulled up, splintered, and stewed into a wooden hash. A process of distilling extracts turpentine and rosin from them.

This year pine trees have been stimulated to greater activity by a sulphuric acid treatment. Normally, the gum ceases to flow from a new gash in about a week, and another gash must be chipped. The acid, sprayed directly on the wound each week, stimulates the production of gum and prolongs the flow for two or three weeks. The output of gum is thus increased up to 30 or 40 per cent.

UMI

at Otranto, the Appian Way is 412 miles long.

It is believed that the Appian Way was originally surfaced with gravel, but in 298 B.C. the first mile of its length, from the Porta Capena to the Temple of Mars, was paved with lava rock. About 280 B.C. the pavement was extended to Benevento, 164 miles from Rome. By 244 B.C. it reached Brindisi.

Construction Would Cost $300,000 a Mile in U. S.

The modern city of Capua, which was taken on October 8 by the American Fifth Army, is 2½ miles northwest of the site of the ancient Capua which was the terminus of the Appian Way when it was first laid out. (The ancient city was destroyed by the Saracens in 840.) When Appius Claudius started construction of the road, the region beyond Capua was not under the control of Rome. But as continuing conquests extended the Empire, hard surfaced roads were necessary for the transportation of troops, supplies, and the vehicles of war—the heavy stone-hurling machines, mounted on chariots, which were ancient Rome's heavy artillery.

Experts have calculated that the cost in the U. S. of a reproduction of a road comparable to the Appian Way would have been $300,000 a mile, with commercial labor at wage rates prevailing in 1926. Roman roads, constructed by the State with labor imposed by law, were paid for by tolls, taxes, and donations.

NOTE: The National Geographic Society's Map of Classical Lands of the Mediterranean shows towns through which the Appian Way ran, with both modern and ancient Roman names. A large-scale inset of Rome shows Roman roads leading from the city.

For additional information on the region traversed by the Appian Way, see "Horace—Classic Poet of the Countryside," in the *National Geographic Magazine* for December, 1935.

Bulletin No. 2, November 1, 1943.

Brauson De Cou

MODERN MOTOR TRUCKS LUMBER ALONG THE ROUTE OF CAESAR'S LEGIONS

The Via Appia becomes a mere village street when it makes its way through Itri, a town in the foothills of the Apennines northwest of Capua. A massive castle frowns down on this symbol of modern progress as the truck rumbles over the hard stone surface of the ancient highway which Caesar's legions traveled to their long-ago wars. The road consists of layers of gravel, broken stones, and cement, flat stones covered with more gravel and cement, and a surface finish of lava rock, smooth on top and rough underneath. Thus Roman road builders achieved a highway about 3½ feet thick and 15 feet wide, which has lasted for over two thousand years, to aid the Allies' present campaign in Italy.

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Caucasus, Home of Amazons, Famed for Hard-Fighting Peoples

WHEN the Russians swept invading Nazis out of the Caucasus, they were repeating a chapter of the history of World War I. In that war too the Germans obtained a toehold in the Caucasus regions and were promptly pushed out.

For their backstairs entry into Russia's southland treasury of minerals, the Germans of World War I selected Georgia, the western third of the southern slopes of the Caucasus Mountains. That neighborhood was then—and is now—valuable for its railroads, ports, manganese, and the oil available from Azerbaijan to the east. Georgian mines were then the world's chief source of manganese ore, imports of which have nourished the steel industry of the United States as well as Germany.

Germany "Protected" Georgia in 1918

In 1917, as the Russian Empire of the Tsars crumbled away, Germany opened a campaign of psychological warfare. Germans reminded Georgia of its proud independent existence under medieval Queen Tamara and its ancient ducal family claiming descent from Biblical King David. The Georgians, therefore, in January, 1918, declared themselves a separate nation, independent of Russia. Immediately German troops appeared in the new republic. They were "protecting" Georgia apparently from Turkey, Georgia's neighbor on the south and Germany's ally.

Within a short time the Allies also undertook the protection of the Caucasus region, with a series of naval and military expeditionary forces, chief of which was the British expedition under Dunsterville. Conflicting European interests in the Caucasus were so involved that the Peace Conference flirted with the idea of giving the reluctant United States a mandate over Armenia, a wedge between the oil of Azerbaijan and the manganese of Georgia. These regions eventually entered the Soviet Union as the Soviet Socialist Republics of Georgia, Armenia, and Azerbaijan.

Conflict in the Caucasus is as old as history. Earliest commentators described the region as a perilous area where hostile nature buried whole caravans in snow avalanches, where all women were dangerous for their muscles or their magic, where men rose out of the ground ready to fight.

Mountains Helped Amazons Win

Early historians said that the Amazons, the hard-hitting nation of warrior women who wielded the double battle-axe and claimed to be daughters of Mars, lived there. The rocky defiles and steep valleys of the Caucasus Mountains, containing the highest peaks in Europe, are so well adapted to defensive fighting that the women there may have bested prehistoric invaders from the plains, thus giving rise to the Amazon legend.

Strabo, the Greek geographer of 1,900 years ago, described the Amazons as living in southwestern Caucasus foothills near the Black Sea. No man, he said, was allowed to live within their frontiers, and every woman was well able to do a man's work—farming, galloping through the forests on boar hunts, breeding horses and training them for cavalry. An Amazon was not considered adult until she had killed a man in battle.

After an explorer reported a tribe of fighting women in Brazil, the Amazons'

Instead of once every week, new gashes must be cut only once every two or three weeks. Three men can handle as many trees as four men could formerly.

Pine Tar for Sailing Ships Named "Naval Stores"

The term "naval stores" dates from the early 17th century when seamen tarred their ropes with pine tar and caulked their sailing vessels with pine tar and pitch. These materials were crude forerunners of today's scientifically produced rosin and turpentine. Most of the naval stores then came from Sweden.

Now the United States produces more than 70 per cent of the world's supply. Georgia leads in production, with Florida second. Alabama, Mississippi, South Carolina, and Louisiana also contribute these war-essential products. About 300,000 people in the South depend on the naval stores industry for their living.

Bulletin No. 3, November 1, 1943.

Clifton Adams

EACH GASH IN A FIGHTING PINE TREE IS ANOTHER V FOR VICTORY

The great variety of war supplies derived from "naval stores" makes each gashed tree a fighter on the forest front. From the pine gum are made turpentine and rosin. From the turpentine the alchemists of modern science make synthetic camphor, about four-fifths of which goes into plastics; the rest makes medicine. Turpentine also is needed for protective paint on tanks, helmets, invasion barges, artillery, grenades, and other equipment. Rosin makes varnish for airplanes and for shells. For these important materials, "hackers" (above), with a special long-handled type of small axe known as a "hack," make a V-shaped gash in the pine tree. From the gash, gum drips down to be collected by two metal gutters into a cup at the point of the V. When one gash ceases to drip, usually in a week, another is made just above it. After several seasons, the tree has a scarred "face" six or eight feet tall. A hacker can make the rounds chipping about 10,000 trees a week. About once a month his route is covered by a crew of "dippers" who dip out the gum from the cups.

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Nazi Targets Blasted by Bombers from Britain

BOMBERS FLY FAR SOUTH: FRIEDRICHSHAFEN

On Germany's southern edge, Friedrichshafen has been attacked on "shuttle raids" by R.A.F. bombers, which have flown on to bases in North Africa to avoid a return trip across the entire length of Germany. Normally with fewer than 10,000 residents, Friedrichshafen stands on a crescent-shaped cove of Lake Constance, which separates Germany from Switzerland. The town was made famous by the *Graf Zeppelin* and other lighter-than-air craft made there. Plants manufacturing radio-locating equipment attracted the bombers.

Until 1908 when the Zeppelin plant was built, little had happened in the town of interest beyond its main street. The greatest excitement was caused by the arrival of German royalty for an annual summer visit.

Not until World War I when the Allies bombed the Zeppelin works was the town's name thrust into the headlines. In 1926 Friedrichshafen's industry built the zeppelin *Los Angeles* for the U. S. Navy.

At one end of the town is the castle formerly used by German royalty. At the other end is the oldest section, with narrow streets and steep-gabled houses. During peacetime summers, thousands of vacationers and weekenders thronged the town's quiet parks and beaches along Lake Constance.

BOMBERS FLY EAST: DANZIG

On one of their farthest-east raids, American airmen from bases in Britain covered a round trip of more than 1,600 miles to bomb Danzig. Railroads, port facilities, shipyards, and other war industries drew their attack.

Railroads have taken over much of the traffic that once flowed down the Vistula River to contribute to the growth of the port of Danzig at the river mouth. Change to rail transport was a factor in thrusting the new Polish city of Gdynia, 14 miles to the northwest, ahead of Danzig in volume of shipping in 1932.

Shipping had early cut Danzig with canals and artificial harbors to provide waterfront for warehouses lining the crooked lanes and narrow alleys of the congested port. Many of the business houses were built long and narrow, to offer small targets to frontal attack from the enemy guns of bygone ages. Before the war this medieval city of gabled skylines had many facades dating from the time of the Teutonic Knights (illustration, next page).

A tug of war for possession of Danzig, between Germany and Poland, was compromised by the Versailles Treaty creation of the Free City of Danzig, under the League of Nations. In 1939 it was incorporated into the German Reich.

By the Versailles Treaty, the Free City of Danzig included territory half the size of Rhode Island, with a population of more than 400,000. Over a quarter of a million resided in the city of Danzig itself.

Held in turn by Pomerania, Poland, Brandenburg, and Denmark, Danzig rose to importance in the Middle Ages, to emerge as a free city under Polish protection in the 15th and 16th centuries. In 1734 it was taken by the Russians and the Saxons, later restored to Poland. It came into the possession of the Prussians late in the 18th century. It remained the capital of West Prussia until the close of World War I.

UMI

name was given to the Amazon River in South America.

Mountain warriors of the Caucasus gave the world examples of total war and guerrilla fighting even before these phrases were invented. Strabo said of a Caucasus mountain tribe that "the whole of the people are a fighting force, though unorganized."

The battling Caucasus mountaineers' skill in keeping under cover, until they sprang like magic on the unsuspecting enemy, may have inspired the myth of warriors rising from the earth to fight Jason, an ancient invader from Greece. In the myth, Jason ventured into what is now the U.S.S.R.'s Georgian Republic. He scattered dragons' teeth over the ground. Immediately armed warriors brandishing swords sprang up, and he was able to escape slaughter only through the magic protection of a South Caucasus enchantress, Medea.

During the last century, while trying to conquer Caucasus tribes and consolidate the rich mountain region with the rest of Russia, soldiers of the Tsar found themselves unable to keep some of the mountaineers under control. Whole clans were moved out of the mountains and resettled in lowland areas where they would not have secret trails and hidden valleys to aid their stubborn defiance of Tsarist armies.

NOTE: The Caucasus region is shown on the National Geographic Society's Map of Europe and the Near East.

See also, "I Learn About the Russians," in the *National Geographic Magazine* for November, 1943; "Roaming Russia's Caucasus," July, 1942*; and in the GEOGRAPHIC SCHOOL BULLETINS: "The Frosty Caucasus Wall, Russia's Mountain Rampart," November 2, 1942; and "Sixteen Miniature 'Nations' Crammed into Russia's Caucasus," October 12, 1942.

Bulletin No. 4, November 1, 1943.

Sovfoto

GIRL PLUS GUN EQUALS MODERN AMAZON, IN RUSSIAN ARITHMETIC

On mountain slopes where fighting women inspired early historians' accounts of the warlike Amazons, modern women joined Russia's guerrilla defense of the Caucasus against Nazi invaders. Observers reported that even women too old to work in office, factory, or field were trained to shoot to defend themselves and their homes. The photograph shows target practice on a collective farm in Daghestan, at the northeast end of the Caucasus range. In spare moments, the workers are practicing in a pasture under the supervision of a Red Army soldier. The girl with the rifle is a full-time tractor driver and part-time Amazon.

BOMBERS FLY SOUTHEAST: JENA

In attacking Jena, British Mosquito bombers have struck at Germany's vital war production of optical glass. A peacetime center of a world trade in all sorts of optical instruments, Jena has provided the Nazi war machine with periscopes, bombsights, telescopes, field glasses, photographic lenses, and thermometers. Chemicals and machinery also are made there.

The city is situated almost in the geographic center of Germany, about 500 air miles from London. Before the war, Jena had a population of about 60,000.

The optical industry began nearly a hundred years ago, when an expert mechanic and inventor, Carl Zeiss, son of a toy maker, opened a workshop for making magnifying glasses, microscopes, and other instruments. Later, prominent scientists established laboratories, and the local industry developed into a big business, with thousands of workers, and subsidiaries and associates in many lands, including the United States.

The first planetarium of its kind, representing heavenly bodies in motion, was built by the Zeiss corporation in Jena.

Jena's Lutheran University, founded back in 1558, carries on its honor roll the name of Goethe, head of the institution during the late 18th century, and such noted philosophers as Hegel, Fichte, and Schiller, who were professors there.

NOTE: European towns bombed by Allied planes are shown on the National Geographic Society's Map of Central Europe and the Mediterranean.

See also these GEOGRAPHIC SCHOOL BULLETINS: "Königsberg, Bombed by Russians, Is World's Amber Capital" (Geo-Graphic Brevity), May 3, 1943; and "Why Do These German Cities Get Bombed?" February 22, 1943.

Bulletin No. 5, November 1, 1943.

Maynard Owen Williams

SHIPPING AND SHIPYARDS DREW BOMBERS TO SHIP-BUILT DANZIG

Some of the German navy's big ships were built before the war in the Schichau yards in Danzig. Since the bombing of western Europe, the eastern shipyards in Danzig are credited with building a larger proportion of Germany's submarines. The American bombers' attack on the Baltic port in October followed earlier attacks by British and Russian bombers. For centuries Danzig has been a shipping center, with warehouses crowded along the waterfront (background). Still dominating the harbor is the 600-year-old overhanging Crane Tower (right), especially built for hoisting cargoes into and from vessels moored alongside. Before the war, Danzig was still a shipping point for timber, coal, and grain.